

**SUMMARY OF ACTIVITIES FOR TASK ORDER 2012, AMENDMENT 4  
TOWER STANDARD SITE, LAC DU FLAMBEAU INDIAN RESERVATION,  
LAC DU FLAMBEAU, WISCONSIN**

**PERIOD OF CONTRACTING OFFICER'S APPROVAL THROUGH APRIL 18, 2016**

Revision 1  
February ~~22~~29, 2016

**1.0 INTRODUCTION**

The U.S. Environmental Protection Agency (EPA) retained Bristol Environmental Remediation Services, LLC (BERS) to assist Region 5 to conduct Site Investigation/Characterization and Remediation at the Tower Standard LUST site on the Lac du Flambeau (LDF) Indian Reservation, Lac du Flambeau, Wisconsin. The EPA assigned this project to BERS as Task Order (TO) No. 2012 under Contract No. EP-W-12-009.

On February 18, 2016, BERS received from EPA a request to prepare a cost estimate for Amendment 4 to TO 2012. The amendment included additional site investigation tasks, including preparation of a site investigation work plan, reviewing site reports, preparing cross sections and other figures, preparing a recommendations report, meeting with the LDF Tribal Natural Resources Department, drilling and sampling 15 soil borings, collecting sub-slab and ambient air vapor samples, sampling four monitoring wells, and preparing a site sampling tech memo.

In preparation of this administrative work plan and the associated cost estimate, BERS has assumed that the tasks included under previously received Amendments 2 and 3 (which were never initiated) will be removed from TO 2012.

By incorporating the changes to the scope (including removing tasks from Amendments 2 and 3 and adding tasks from Amendment 4), BERS' cost estimate has decreased from \$180,981.65 (Amendment 3 approved on October 5, 2015) to \$109,231.69.

The Site is located on fee land within the Lac du Flambeau Indian Reservation at the intersection of State Highway 70 and County Road D near Lac du Flambeau, Wisconsin. The Site is bordered on the north by State Highway 70, to the south by Haskell Lake, and to the southwest by the Haskell Lake Lodge motel. ~~The Tribe's Land Management Office~~ A construction office is located to the northwest of the intersection. A bait shop is now located on the property.

The Tower Standard gas station was built in the early 1940's and operated until 1997. Six underground storage tanks were located on the property, five of which contained leaded or unleaded gasoline. One tank contained waste oil. All tanks were removed in 1997. Following the closure of the gas station, the owner opened a bait and tackle shop called Bill and Linda's Lively Bait and Tackle on the site. This shop operates during the summer months.

Investigations at the Site began with a preliminary site assessment in 1997. Stained soils and odors were noted and contamination was confirmed by soil sampling. A sample collected from a private well at the Site in 1998 contained benzene. The Wisconsin LUST program paid to replace

the well. Afterward, monitoring wells were installed at the Site and samples drawn from the wells showed petroleum compounds in the groundwater. Contamination was found to be moving downward in the aquifer, affected by the pumping of nearby drinking water wells. Subsequently, a groundwater pump and treat system was installed at the Site to remove petroleum contamination and prevent off-site migration. ~~The system was shut down at the request of the owner because of costs.~~ The Wisconsin LUST program determined that the site met conditions for closure in 2006, although soil and groundwater contamination was still present.

An unrelated investigation performed under the Targeted Brownfields Assessment (TBA) program was begun in 2011 in response to a request from the Tribe. A fireworks stand directly across Highway 70 from the Tower Standard Site burned down and the Tribe was concerned about perchlorate contamination leaching to groundwater and surface water. The purpose of the investigation was to identify the horizontal and vertical extent of perchlorate contamination in groundwater and assess potential routes of exposure to local residents or ecological receptors. Much of the work occurred on the south side of Highway 70, near the Tower Standard Site location because groundwater movement in this area is in part toward Haskell Lake.

While performing vertical aquifer sampling for perchlorates during the TBA investigation, strong petroleum odors were noted by the field geologist at 30 feet in one boring and at 40 to 50 feet in another boring. Samples were not analyzed for petroleum compounds at this time due to the nature of the TBA investigation.

\* The Tribe obtained a contractor to investigate the suspected petroleum contamination. Drilling in the same locations used during the TBA investigation, the contractor discovered a total volatile organic compounds (VOCs) concentration of over 47,000 parts per billion (ppb) at 25 feet in one groundwater sample taken near the Site. A sample collected immediately adjacent to Haskell Lake found total VOCs of over 2,500 ppb at 40 feet in the groundwater.

The Tribe expressed concern to EPA Region 5 about the persistence of petroleum-related contamination at the Site. ~~The Tribe also met with Region 5 and the Wisconsin LUST Program personnel to ask that they reopen the Site and assess lingering contamination. Wisconsin agreed to reopen Wisconsin reopened~~ the Tower Standard LUST site to access State LUST funding and started the process of procuring additional field work activities to define the current status of contamination at and near the site.

BERS' subcontractor REI conducted private well sampling in 2014, and BERS developed a report on the findings under this contract, Task Order 1019. Under the scope of work included through Amendment 1, TO 2012 procured contractor support to conduct one additional round of private well sampling. This work is complete and a draft report was submitted to EPA for review on January 12, 2016.

Amendments 2 and 3 included additional work that was never completed and is currently assumed by BERS to be removed from the TO.

Amendment 4 to the TO (covered in this administrative work plan and the associated cost estimate) procures contractor support to perform site investigation activities, including reviewing

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reports and generating recommendations for future site activities, drilling and sampling soil borings, collecting vapor samples, and sampling monitoring wells.

## **2.0 PROJECT TASKS**

Tasks include for Amendment 4 include preparing the Administrative Work Plan and cost estimate, preparing monthly progress/site-specific financial reports; updating the existing Site Safety and Health Plan (SSHP); reviewing site reports; preparing figures (including cross sections and potentiometric surface maps); preparing a Recommendations Report; preparing a Vapor Intrusion, Groundwater, and Soil Investigation Work Plan; participating in an on-site meeting and conference calls; subcontracting one round of groundwater sample collection from private wells; preparing a brief Private Well Sampling Report; drilling 15 soil borings and collecting soil samples from each; collecting ten ambient air and one sub-slab vapor samples; collecting groundwater samples from four monitoring wells; analyzing all of the samples; and preparing a Site Sampling Tech Memo.

The tasks presented here were derived from the EPA performance work statement received on February 18, 2016. A conference call with the EPA Subject Matter Expert (SME) occurred on February 22, 2016. This narrative includes the decisions made during the conference call.

### **Task 1: Statement of Work/Performance Work Statement/Specifications (Budget)**

The Performance Work Statement/Specifications (Administrative Work Plan) includes a description of the technical approach, resources, due dates for deliverables, detailed cost estimate by task, and a list of staff and estimated hours.

#### Monthly Progress/Financial Reports (Administrative)

BERS will submit monthly progress reports to the EPA and will maintain routine communication with the Subject Matter Expert (SME).

The Monthly Progress Reports are due to the Project Officer and to the Contracting Officer each month. The reports will document the work performed, deliverables submitted, difficulties encountered, actions taken, and budget status of the project.

#### Site-Specific Quality Assurance Project Plan (QAPP)

As agreed during the February 22, 2016, BERS assumes that the existing approved Region 5 QAPP will not require revision for the Amendment 4 activities.

#### Site-Specific Safety and Health Plan (SSHP)

BERS will revise the existing site-specific safety and health plan (SSHP) as necessary to incorporate Amendment 4 activities. The SSHP will be submitted to the EPA SME as a pdf via email within 15 days of receipt of the approved TO for the site. Comments from the EPA will be addressed by BERS and accepted by the EPA prior to finalizing the SSHP. The revised SSHP will be provided to the EPA for approval within 7 days of BERS' receipt of the SME's comments. BERS will provide one copy of the SSHP to the EPA SME in both hardcopy and electronic forms.

Budgeted hours include BERS' efforts to modify the existing SSHP and format, edit, and produce the document.

## **Task 2 Site Investigation/Characterization**

The SME will acquire access to private properties with the assistance of the tribe prior to field work initiation. During site activities, a tribal representative will accompany the sampling team to assist with access and answer residents' questions. All access issues will be referred to the EPA Region 5 SME for resolution.

Under TO 1019, BERS discovered that the site is not located on tribal property and so TERO would not apply; additionally, the SME contacted the Tribe and was told that there would be no TERO fee. BERS contacted the Tribe to determine if a business license was needed. Per the manager of the Lands Department, no license is needed and BERS has permission to conduct work but the work must be coordinated with the Water and Sewer Department (contact Scott Valure (715-614-6394). BERS assumes the EPA SME will make contact, based on discussions held during a May 13, 2015 conference call.

### **Subtask a. Prepare a Vapor Intrusion Sampling, Soil Boring and Soil Sampling Plan/Conference Calls to Discuss Planning and Progress/Meeting with the LDF Tribe**

#### Work Plan

BERS will work with the Region 5 SME to plan and schedule field activities, which will include air sampling, drilling soil borings, collecting subsurface soil samples, and sampling existing monitoring wells. Air sampling will include one sub-slab sample at the bait shop, one indoor air sample at the bait shop, four indoor air samples at Haskell Lake Lodge, four ambient air samples from the crawlspace at Haskell Lake Lodge, and one outdoor air sample. The sub-slab vapor port will be left in place to facilitate future sampling efforts. The indoor and outdoor air samples will be collected over 24 hours. The soil boring program will include 15 borings to 15 feet, each sampled continuously. Two primary samples will be collected from each boring. The groundwater sampling effort will include one primary sample from each of four monitoring wells: MW-16 (shallow), MW-16 (deep), MW-20 (shallow), and MW-20 (deep).

The Site Investigation Work Plan will be submitted to the EPA SME as a pdf via email within 15 days of receipt of the approved TO for the site. Comments from the EPA will be addressed by BERS and accepted by the EPA prior to finalizing the Plan. The revised Plan will be provided to the EPA for approval within 7 days of BERS' receipt of the SME's comments. BERS will provide two copies of the final work plan to the EPA SME in both hardcopy and electronic forms.

The EPA SME will provide electronic copies of one or more site reports, including a Vertical Aquifer Sampling Report prepared by Weston in 2014, which BERS will review in order to become familiar with the known extent and nature of contamination. BERS assumes that two persons (one at the Senior level and one at the Mid level) will spend 8 hours each performing the review.

#### Conference Calls

BERS will participate in conference calls with the EPA SME and an LDF tribal representative prior to field mobilization and prior to submittal of the draft Recommendations Report. For cost estimating purposes, BERS has assumed that the project manager and primary field person will participate in conference calls, and that the pre-mobilization conference call will require one hour of effort and the pre-report submittal conference call will require two hours of effort.

#### Meeting with the LDF Tribal Natural Resources Department

On the first day of the field effort, the BERS field team (including project manager) and a senior environmental engineer (via teleconference) will participate in a meeting with the LDF tribal representative and the EPA SME to discuss the site and long and short-term goals for the project. For cost estimating purposes, BERS has assumed that the meeting will take place during the field mobilization and that three hours of time will be required.

#### Review Site Reports & Recent Site Data, Prepare Figures and Recommendations for Future Data Collection and Near-Term Remedial Actions

BERS will review reports and recent site data provided by EPA and will generate figures that can be shared with other parties for the purposes of planning future efforts at the site. The results of the review will also be used to select soil boring locations under this task order. BERS assumes that figures will include four cross sections of the site (two presenting groundwater analytical data and two presenting soil analytical data) and two potentiometric surface maps (one for the shallow wells and one for the deep wells). Cross sections will include lithology, analytical results, and outlines of the areas impacted above action levels. For cost estimating purposes, BERS has assumed that review will require 32 hours each for two reviewers, and that generation of figures will require 40 hours of drafting labor.

The draft figures will be due to the EPA SME in electronic format via email by March 25, 2016 ten business days after task order award. The final figures and the draft Recommendations Report will be due by April 15, 2016. BERS will provide two copies of the draft report to the EPA SME in both hardcopy and electronic forms.

#### **Subtask b. Field Work**

BERS will perform site investigation activities, including advancing 15 soil borings to ~~45~~20 feet below the ground surface (bgs) utilizing a drilling method that will allow for continuous sampling. The entire length of each boring will be field screened using a photoionization detector (PID) and up to two primary samples will be collected from each boring and submitted for laboratory analysis. The soil samples will be analyzed for petroleum volatile organic compounds (PVOCs) (including methyl tertiary-butyl ether [MTBE]), polynuclear aromatic hydrocarbons (PAHs), diesel-range organics (DRO), gasoline-range organics (GRO), and RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). Thirty primary soil samples, three field duplicates, two MS/MSD pairs, and one trip blank (for VOCs) are anticipated. The samples will be analyzed by Pace Analytical, located in Minneapolis, Minnesota. Pace has performed chemical analyses for BERS on a number of projects for Region 5, under the existing contract and for the previous TO 1019. The locations of the borings are to

be determined during the review of existing data performed under Subtask a, and will be designed to fill data gaps.

BERS will collect groundwater samples from four existing monitoring wells during the same field mobilization as the soil boring program. The wells to be sampled have been selected by EPA and include two wells at the MW-16 location (one shallow and one deep) and two wells at the MW-20 location (one shallow and one deep). BERS understands that the static water levels for all four wells are within ten feet of the ground surface, and that the two deep wells are screened at depth (37-42 feet bgs at MW-16 and 20-25 feet bgs at MW-20). Wells will be sampled using a low-flow groundwater sampling technique and a bladder pump. The groundwater samples will be analyzed at the laboratory for VOCs, sulfate, nitrate, manganese, and iron. Three primary groundwater samples, one duplicate, one MS/MSD pair, and one trip blank (for VOCs) are anticipated. The inclusion of nitrate in the analytical suite will require daily sample shipment to the analytical laboratory, due to a 48-hour hold time for this analysis. The samples will be analyzed by Pace Analytical, located in Minneapolis, Minnesota.

BERS will collect sub-slab, indoor, and outdoor air samples. The sub-slab sample will be collected at the bait shop located at the former service station. BERS will install a re-usable port through the floor to allow for future sampling events. BERS will collect one indoor air sample at the bait shop and eight at the Haskell Lake Lodge. Four of the air samples collected at the lodge will be in the crawl space, and four will be in hotel rooms. One outdoor air sample will be collected at the same time as the indoor air samples. All outdoor and indoor air samples will be collected over a 24-hour period. All air samples will be submitted to Pace Analytical for VOC analysis by method TO-15.

BERS assumes that two BERS personnel will mobilize to the site for site investigation activities. BERS also assumes that all activities will be performed in one mobilization that is estimated to take approximately one week.

All analytical data will be forwarded to the EPA SME upon receipt. Data verification for all analytical data will be performed by an outside party (Argon of Alaska).

Field work will begin within 30 days after approval of the work plan; the targeted start date for the field effort is mid-March, 2016. BERS will coordinate with the SME and LDF Tribe on the sampling dates.

#### **Subtask c. Site Sampling Tech Memo**

BERS will prepare a brief site sampling technical memorandum (tech memo) describing all field activities, deviations from the work plan (if applicable), and presenting the results of the sample analyses. Sample locations with contaminant detections will be displayed on an aerial photo image of the area. Results from the soil sampling performed in September 2015 by the PECFA contractor will be included. The tech memo will be due on April 15, 2016. BERS will provide two copies of the tech memo to the EPA SME in both hardcopy and electronic forms.